ABSTRACT

A 64-state binary convolutional code is disclosed for a high-speed physical layer (PHY) of a communication network. The proposed code provides improved performance in terms of signal to noise ratio (SNR) and multi-path rejection than previously known codes. The proposed system, which includes binary convolutional codes with scrambling in a packet-based system, is referred to herein as "packet binary convolutional coding" (PBCC). The substantial increase in performance that may be achieved by PBCC makes it an ideal solution for high performance forward error correction (FEC) in a high-speed PHY.